# PRODUCT INFORMATION

## ATR-258

*Item No. 45371*

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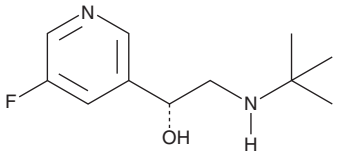
| **CAS Registry No.:** | 2301983-88-8 |
| **Formal Name:** | αR-[[(1,1-dimethylethyl)amino]methyl]-5-fluoro-3-pyridinemethanol |
| **MF:** | $C_{11}H_{17}FN_2O$ |
| **FW:** | 212.3 |
| **Purity:** | ≥98% |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

ATR-258 is supplied as a solid. A stock solution may be made by dissolving the ATR-258 in the solvent of choice, which should be purged with an inert gas. ATR-258 is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ATR-258 can be prepared by directly dissolving the solid in aqueous buffers. ATR-258 is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

### Description

ATR-258 is a GRK-biased agonist of the $\beta_2$-adrenergic receptor ($\beta_2$-AR).[1] It binds to the orthosteric site on $\beta_2$-AR and mediates glucose uptake dependent on G protein-coupled receptor kinase 2 (GRK2) with low $G\alpha_s$-dependent cAMP generation in a phenotypic screen. ATR-258 (10 µM) increases glucose uptake in L6 cells that endogenously express $\beta_2$-AR, an effect that can be blocked by the $\beta_2$-AR antagonist ICI 118551 (Item No. 15591) or the mTORC2 inhibitor JR-AB2-011. Oral administration of ATR-258 (0.3 mg/kg) improves glucose tolerance, reduces fat mass, and increases lean mass in diet-induced obese (DIO) mice without increasing heart weight. ATR-258 in combination with liraglutide (Item No. 24727) reduces fat mass without reducing lean mass in DIO mice.

### Reference

1. Motso, A., Pelcman, B., Kalinovich, A., *et al.* GRK-biased adrenergic agonists for the treatment of type 2 diabetes and obesity. *Cell* **188(19)**, 5142-5156 (2025).



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